Journal of Applied Geophysics, 30 (1993) 327
Elsevier Science Publishers B.V., Amsterdam

Contents Volume 30, 1993

Editorial v

Special Issue: Geophysical Exploration in Areas of Complex Geology, II (edited by R. Cassinis, K. Helbig and G.F. Panza)

Simultaneous observation of seismic waves of different polarization indicates subsurface anisotropy and might help to unravel its cause
K. Helbig 1
Refraction statics for complex near-surface models
L. Zanzi 25
The reflectivity method as a tool for evaluating the seismic response of layered structures
F. Pirera and L. Zanzi 35
Reinterpretation of a wide angle reflection "fan" across the Central Alps
G. Musacchio, R. De Franco, R. Cassinis and G. Gosso 43
Ray tracing in complex media
V. Farra 55
Sequential migration-aided reflection tomography: an approach to imaging complex structures
G. Grau and P. Lailly 75
Point source moment tensor retrieval in volcanic, geothermal and orogenic areas by complete waveform inversion
G.F. Panza, J. Šílený, P. Campus, R. Nicolich and G. Ranieri 89
Seismic tomography and modeling of complex geological structures
R. Scarpa 119
Variability of seismic ground motion in complex media: the case of a sedimentary basin in the Friuli (Italy) area
D. Fäh, P. Suhadolc and G.F. Panza 131
Zoning of the Italian territory in terms of expected peak ground acceleration derived from complete synthetic seismograms
G. Costa, G.F. Panza, P. Suhadolc and F. Vaccari 149

Research Papers
Electrical resistivity measurements to estimate travel times through unsaturated ground water protective layers
R.J. Kalinski, W.E. Kelly, I. Bogardi and G. Pesti 161
Geophysical exploration for Archaean gold: a case study from the Southern Cross Greenstone Belt, Western Australia
M.C. Dentith, A. Trench and M. Jones 175
Investigation of geophysical fields in pyrite deposits under mountainous conditions
B.E. Khesin, V.V. Alexeyev and L.V. Eppelbaum 187
Calculation of electromagnetic anomalies of perfectly conducting bodies by integral equations
M. Oksama and I. Suppala 205
The uses and abuses of the Archie equations, 1: The formation factor–porosity relationship
P.F. Worthington 215
Some remarks on static field thin sheet models
L. Eskola, T. Jokinen, H. Soininen and T. Tervo 229
Rapid, high-accuracy electromagnetic soundings using a novel four-axis coil to measure magnetic field ellipticity
N.H. Bak, B.K. Sternberg, S.L. Dvorak and S.J. Thomas 235

Discussion
Modelling spontaneous mineralization potentials with a new integral equation — a discussion
L. Eskola and H. Hongisto 247
Modelling spontaneous mineralization potentials with a new integral equation – a reply
P. Furness 249

Book Reviews
Geophysical Interpretation Using Integral Equations by L. Eskola — M. Goldman 251
Earth Soundings Analysis by J.E. Claerbout — T.E. Owen 253

Profile
Environmental and Engineering Geophysical Society 257

Research Papers
Using borehole geophysics and cross-borehole flow testing to define hydraulic connections between fracture zones in bedrock aquifers
F.L. Paillet 261
Multiple log potash assay
D.G. Hill 281
Temperature logging in mineral exploration
C.J. Mwenifumbo 297

Letter to the Editor
Comments on: G.V. Keller, Electrical and electromagnetic methods in areas of complex geology
J.R. Wait 315

Comment
The versatility of digital linear filters used in computing resistivity and EM sounding curves—comments
S.P. Sharma 317

Book Reviews
The Most Frequent Value: Introduction to a Modern Conception of Statistics, by F. Steiner (Editor) — N. Gustavsson 319
Thrust Tectonics, by K.R. McClay (Editor) — B.C. Burchfiel 320
Applied Geophysics, by W.M. Telford, L.P. Geldart and R.E. Sherrif — R. Green 322
Discontinuity Analysis for Rock Engineering, by S.D. Priest — I.W. Farmer 323
Seismic Applications of Acoustic Reciprocity, by J.T. Fokkema and P.M. van den Berg — M. Båth 324

Contents Volume 30, 1993 327

FORTHCOMING SPECIAL ISSUE:

Geophysics and Environment (edited by P.Chapelier, D. Fitterman, C. Meyer de Stadelhofen, D.S. Parasnis, D.W. Steeples and P. Valla)